

What is claimed is:

1 1. A mobile communications system comprising at least one primary network
2 unit capable of supporting a plurality of secondary network units each capable of
3 supporting a plurality of mobile users, the primary and secondary network units
4 communicating across a circuit switched interface, said system comprising means to
5 provide an Internet Protocol tunnel between a primary network unit and a secondary
6 network unit which it supports.

1 2. A system according to Claim 1 wherein the primary network unit is a Base
2 Station Controller and the secondary network unit is a Base Transceiver Station .

1 3. A system according to Claim 1 wherein the primary network unit is a Radio
2 Network Controller and the secondary network unit is a Node B.

1 4. A system according to Claim 2 wherein the Internet Protocol tunnel is arranged
2 between a Channel Codec Unit in a Base Transceiver Station and a Packet Control Unit
3 in a Base Station Controller, the Channel Codec Unit and the Packet Control Unit each
4 comprising a Data link Layer/Physical Layer an Internet Protocol layer and a GPRS layer
5 3/layer 2 message layer.

1 5. A system according to Claim 1 wherein each end of the Internet Protocol
2 tunnel is associated with a Packet Classifier and Marker in respectively each primary
3 network unit and each secondary network unit .

1 6. A system according to Claim 1 wherein the circuit switched interface is an
2 Abis interface.

1 7. A system according to Claim 6 wherein each packet passing between a primary
2 and a secondary network unit is arranged to contain adjacent the packet header an Abis-
3 message type field which identifies the type of messages.

1 8. A system according to Claim 7 wherein the Abis-type message field identifies
2 the secondary network elements in the BTS .

